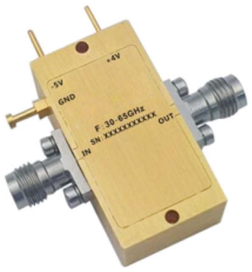
Wide Band Low Noise Amplifier 30GHz~65GHz

Features

- Gain: 20 dB Typical
- Saturated Output Power: +20 dBm Typical
- Supply Voltage: +4 V



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	30		40	40		60	60		65	GHz
Gain	15	17	22	17	20	22	12	15	22	dB
Gain Flatness		±1.5			±1.0			±3.0		dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±2.5			±2.5			±2.5		dB
Noise Figure		/			/			/		dB
Input VSWR		2.5			2.5			2.5		: 1
Output VSWR		2.5			2.5			2.5		: 1
Output 1dB Compression Point (P1dB)	15	16		15	16		15	16		dBm
Saturated Output Power (Psat)	17	20		18	20		16	20		dBm
Output Third Order Intercept (OIP3)		25			25			25		dBm
Supply Current (Vcc=+4V, Vg=-5V)		400	750		400	750		400	750	mA
Isolation S12		-50			-45			-40		dB

Weight	2.1 Max. ounces	Impedance	50 ohms
Input / Output Connectors	1.85mm-Female	Material	copper
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	+23dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect -5V biasing
Step 4	Connect +4V biasing

Power OFF Procedure

Step 1	Turn off +4V biasing
Step 2	Turn off -5V biasing
Step 3	Remove RF connection
Step 4	Remove Ground.

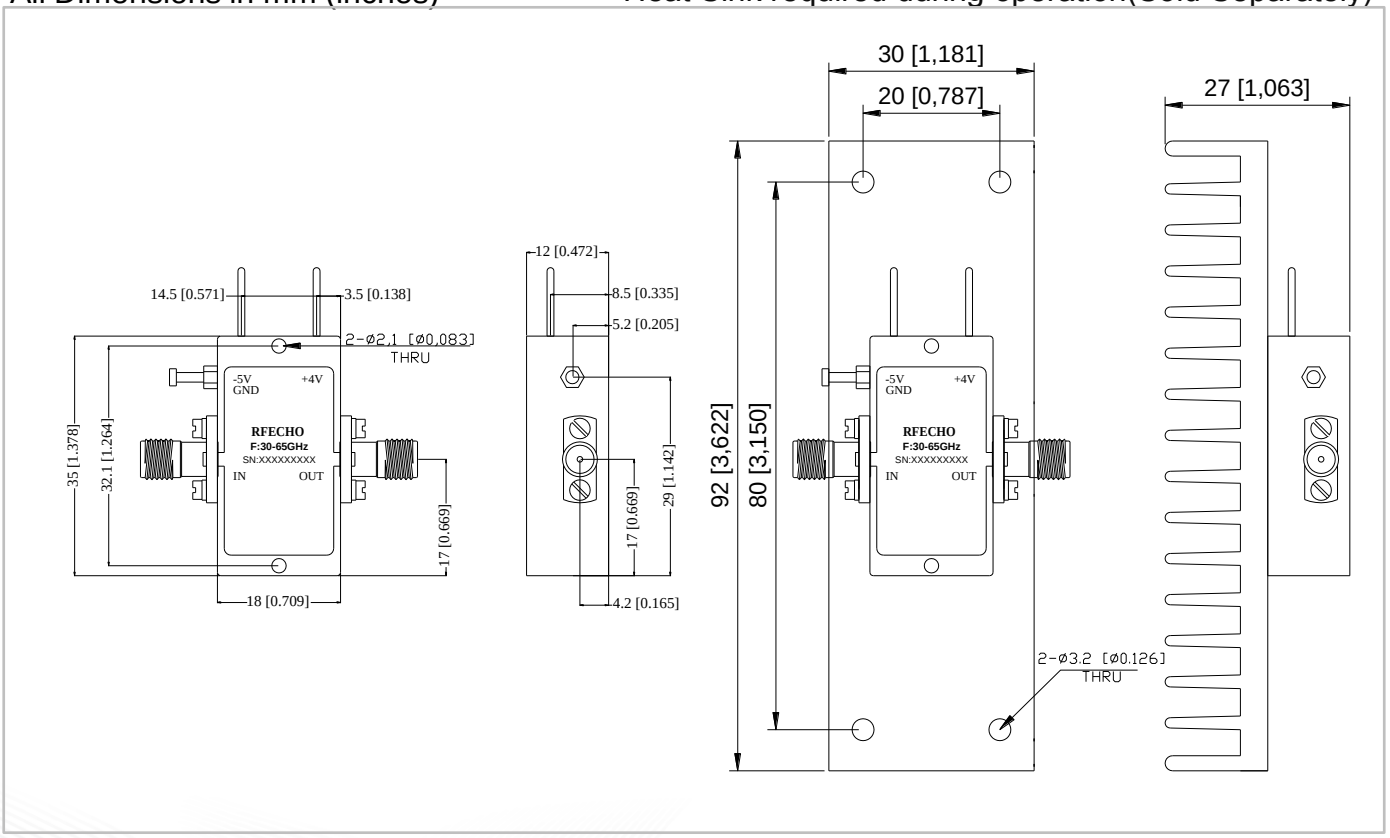
Environmental Specifications

Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

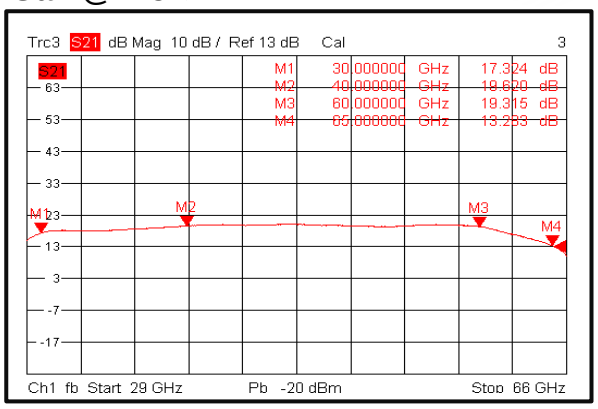
Outline Drawing:

All Dimensions in mm (inches)

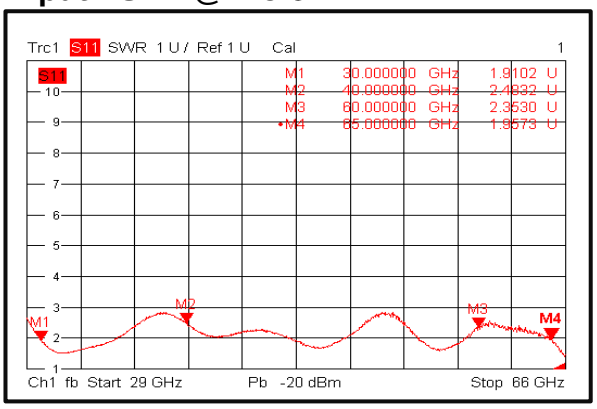
Heat Sink required during operation(Sold Separately)



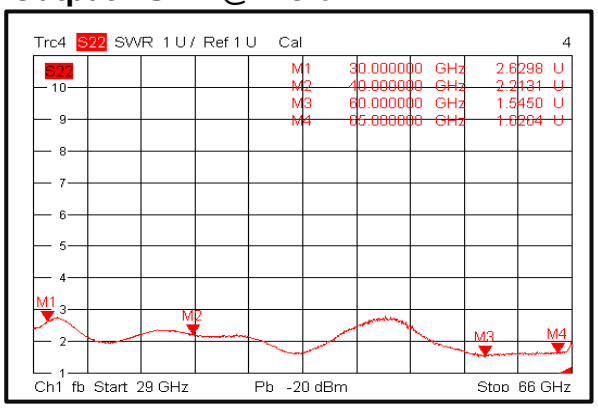
Gain@+25℃



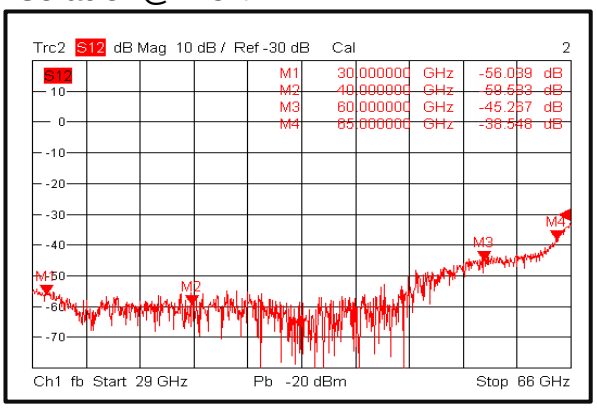
Input VSWR@+25℃



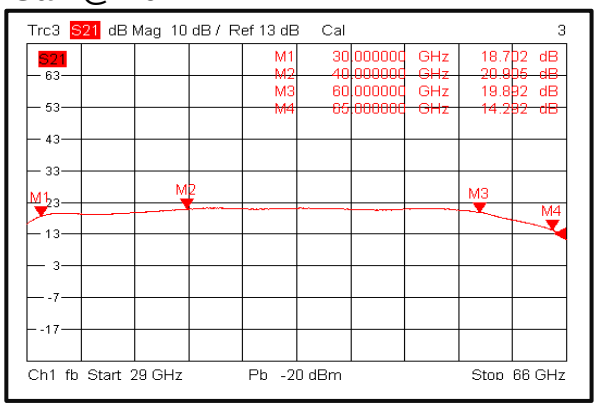
Output VSWR@+25℃



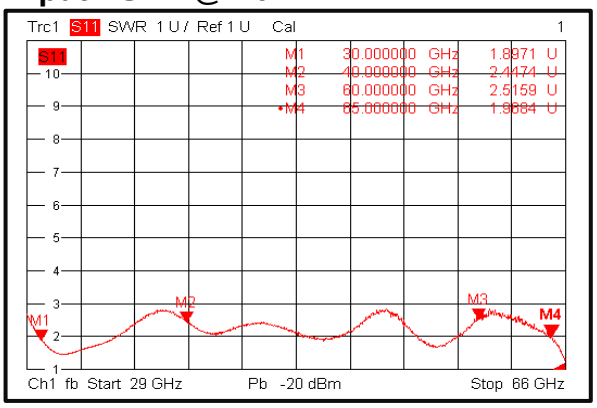
Isolation@+25℃



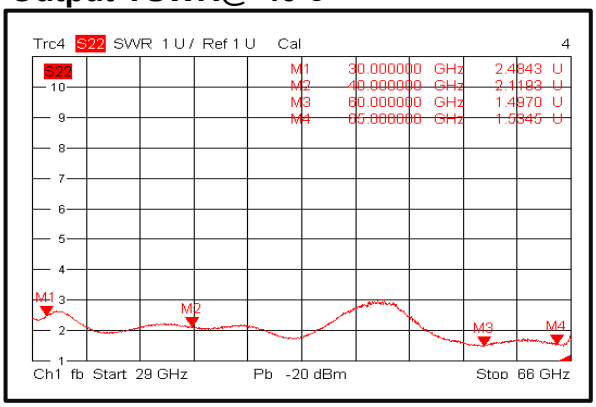
Gain@-40℃



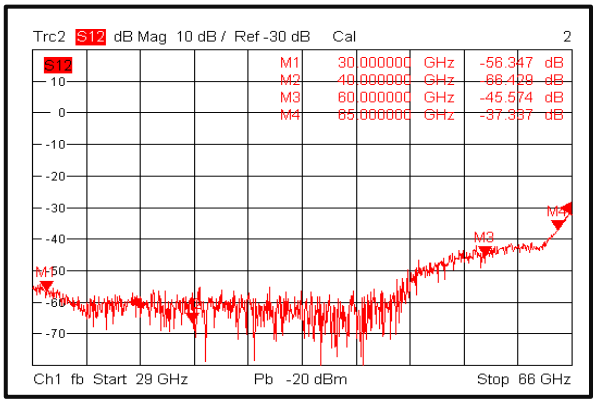
Input VSWR@-40℃



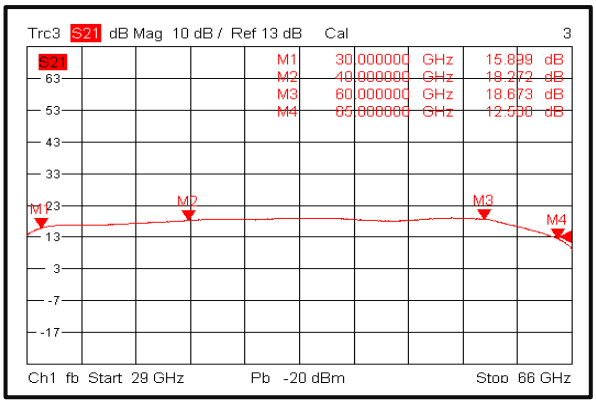
Output VSWR@-40℃



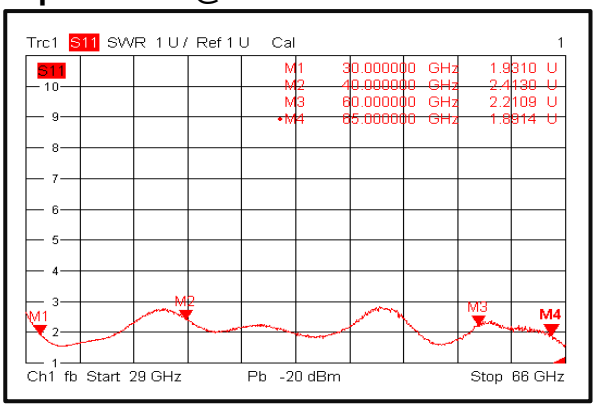
Isolation@-40℃



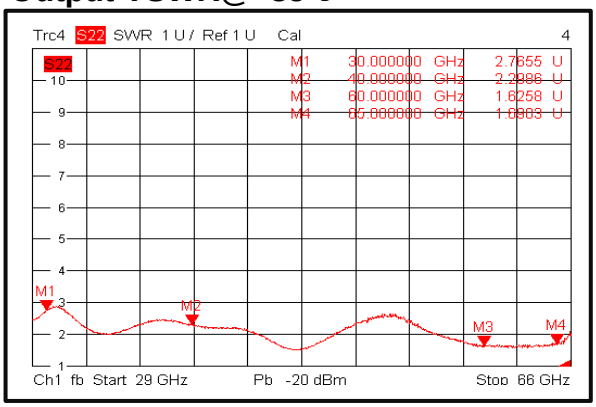
Gain@+85℃



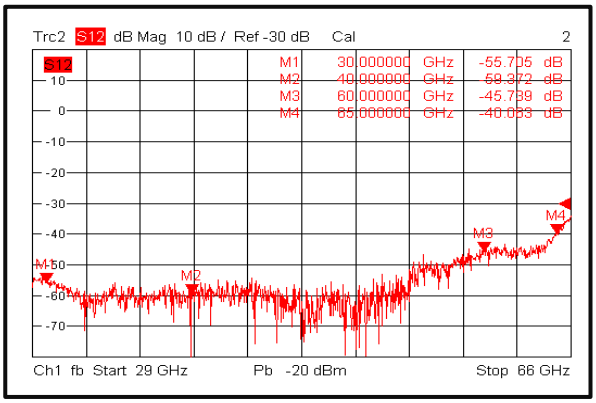
Input VSWR@+85℃



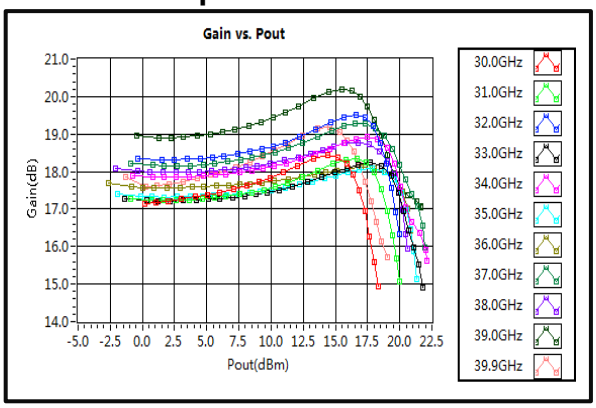
Output VSWR@+85℃



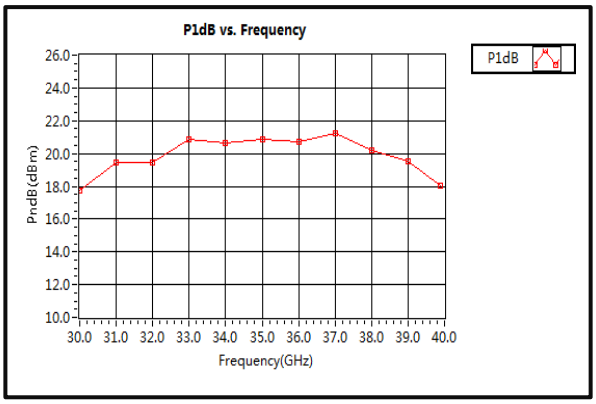
Isolation@+85℃



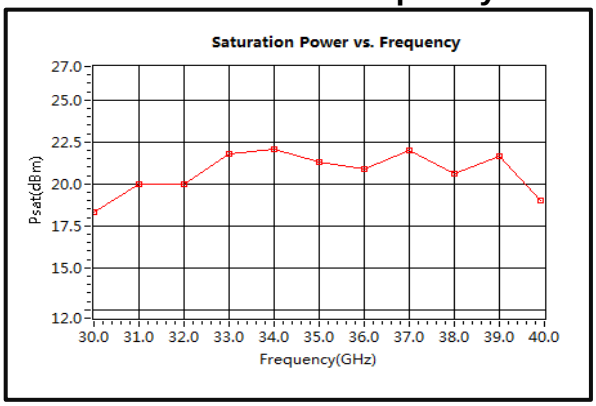
Gain vs. Output Power



P1dB vs. Frequency



Saturation Power vs. Frequency



Output Third Order Intercept (OIP3)